

TESLA WHEELS



PT OWNER'S MANUAL

Please Read Before Operating

When our Tesla Transporters are sold, they come with this user manual for users' reference.

The user manual is applicable to the entire self-balance scooter range produced by Tesla Enterprises Au. You may find that some functions are different from what you ordered depending if you purchased an Off-road, or Golf model, PT model etc...

To ensure the best user experience, please read the user manual carefully. You will learn how to drive and maintain the Tesla Personal transporter. After reading, please keep the user manual in a safe place for quick reference.

The warranty card is included inside the box. You can find your warranty rights in the user manual. Please read the user manual carefully so that you know what is covered under the limited warranty.

Please maintain your Personal Transporter according to the user manual so that you can keep it in the best condition. We have experts available for after sales service and support and will answer any questions you may have.

Safety Instructions

- **For adults use only.**
- **Please abide by your local traffic regulations.**
- **Please wear helmet, knee and elbow guards for safety purposes.**
- **Please read the relevant driving guidelines in this manual.**

Table of Contents

Introduction.....	4
Chapter II Components.....	5
Chapter III Getting Started	7
Chapter IV Instruction of Four Modes Switching.....	9
Chapter V Driving	10
Chapter VI Charging	14
Chapter VII Maintenance	15
Chapter VIII Notice	16
Chapter IX Technical Data	17
Warranty information.....	18

Chapter I Introduction of Transporter

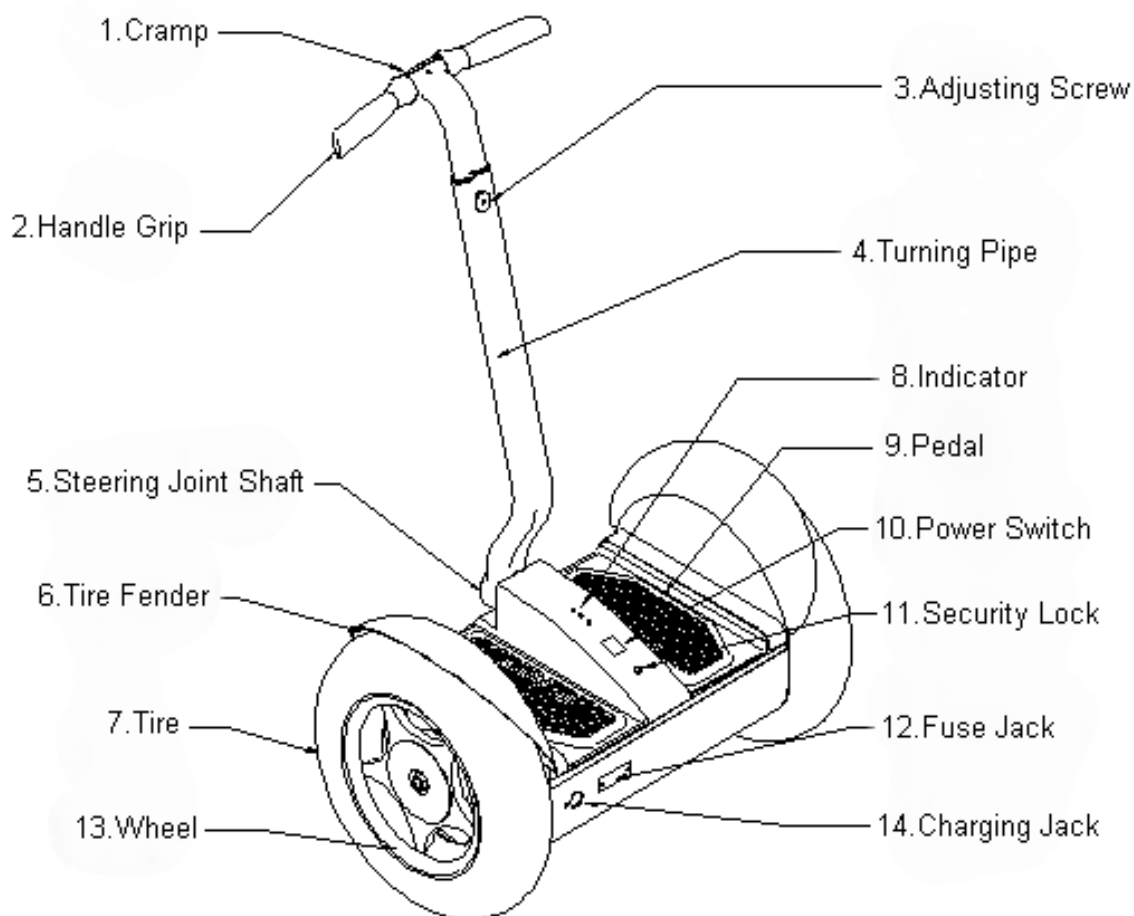
The working principle of the self balancing scooter is based on a basic principle called "dynamic stability" which is the automatic balance ability of the vehicle itself. After judging body posture position with a built-in precision solid gyroscope, the vehicles electronic brain works out proper instructions through a sophisticated and high-speed central microprocessor, the 36V-42Ah battery drives the motor to balance the vehicle.

As a new transporter, the scooter is difficult to classify in the traditional way, some people think that Personal Transporter should be a kind of double-wheeled Unicycle, while other people think it should be classed as a power stand-up Scooter, with its uniaxial double design which is different from the traditional biaxial double scooter, for official road regulations, this transporter is called Electric Personal Assistive Mobility Device (EPAMD)

The vehicle is equipped with dual wheels. Its width is as narrow as a normal adult shoulder's width. It is 43 kg and battery-propelled. It is not necessary to have a brake or throttle during driving. When the drivers lean their body forward, the scooter will run forward, when the body is upright, it will stop. It uses the dynamic balance principle, just like the body changes the center of gravity to keep balance. When people stand still, it will lose balance if their body lean forward, but the brain's natural instinct will tell them move their feet to keep balance. This Transporter uses wheels to replace the function of the feet, reproducing the high precision balance action of a human with lower cost. The energy comes from a rechargeable Lithium Ion Samsung battery, which are free from maintenance. If sufficient power is supplied to the battery, the full charge capacity will last continuous for 5 hours driving, the driving range depends on the way you drive and ground conditions, driving on grass and slopes will consume more driving power.



Chapter II Parts Explanation



Picture 1

1. Handle Bar/Turning Pipe

(1) Used to control and make the transporter turn left or right, turn around, rotate 360 degrees. It also has support function and can play a subsidiary role in keeping body balance.

(2) The height is adjustable. The driver can adjust it according to his or her own height to make the handle bar comfortable.

(3) Lock the steering rod after adjustment, and then turn the handle bar to confirm that it has been locked.

(4) All the adjustment above should be finished before driving.

(5) The turning pipe can be taken apart easily for carrying or storage.

2. Power Switch

- (1) The power switch is used to turn on and off the power. When the power switch is on, the transporter will be initialized.
- (2) It is dangerous to stand on E-swing without turning on the power.

3. Pedal Switch (SAFE switch)

- (1) The pedal switch can be up or down. It has a built-in safety switch to check whether someone is on scooter.
- (2) The pedal switch is safety insurance. If the driver leaves the Transporter while driving, the pedal switch will reset and the scooter will stop after 3 seconds.

4. Indicator Lights on Pedal

- (1) Green light (Operating light 1)
Display system working state and battery state.

- (2) Orange light (warning light 2)
Battery capacity indicator: battery is low

- (3) Red light (warning light 3)
Battery capacity indicator: battery is extremely low

Always keep battery charged, Do not use when the red light is continually on. It is harmful to battery and will reduce battery's life.

5. Instructions of Alarm System

- (1) The scooter beeps repeatedly with one sound or two sounds after power on. This means the leaning angle is too big (the pedal is not vertical). Make the pedal placed upright and horizontal, then power on the scooter.
- (2) The scooter beeps repeated with five sounds after power on. This means the scooter is locked or the pedal switch is not detached.
- (3) The scooter will make 3 seconds of balancing delay after the driver gets off. Accompanied with beep 9 sound.
- (4) The scooter will sound a long alarm when it reaches its max speed. At this time, DO NOT continue lean forward or force to accelerate. You need adjust your body and slow down. Otherwise you risk causing injury.

Chapter III Getting Started

1. The Right Starting Operation

Hold the turning pipe/handle bar with one hand, keeping the pedal upright, unlock the scooter (lock mode: the key hole point to green spot, unlock mode: the key hole point to red spot), turn on the power making the green light stay on continuous, this means starting is a success (refer to picture 2,3,4). Then hold the handle bar firmly with two hands (refer to picture 5).

Note: Make sure the pedal is placed upright. The Transporter will consider the current pedal's position as its original position setting. This is a very important step. If the original position is not set correctly, it will not balance well.



Picture 2



Picture 3



Picture 4



Picture 5

2. The Wrong Starting Operation (refer to picture 6 and 7)

Transporter will consider the current pedal's position as its original position setting, so it is hard for driver to stand on Transporter if the pedal is not vertical. The original position can be reset after repeated power on and off. For example, you can turn off Transporter and put the pedal vertical, then turn it on and test it, try this adjustment until it is in best state.



Picture 6



Picture 7

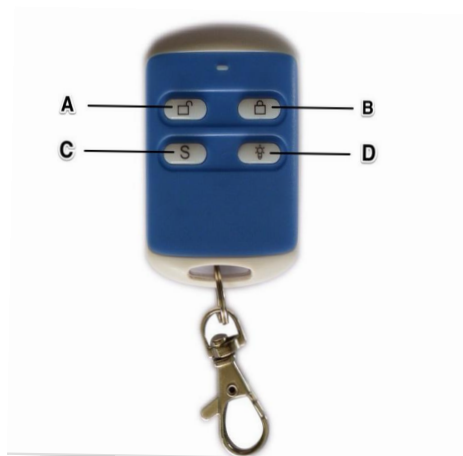
3. Correct Example As Follows (refer to picture8)

(Must keep Transporter vertical before powering on)



Picture 8

Chapter IV Instruction of Four Modes Switching



Remote Controller

1. Default or Normal Mode

When power is on, the system will go through self-check. The scooter starts to self balance and enters working status immediately with driver standing on it. This is Default Mode, in this mode, the max speed is 20km/h and the turning is flexible and sensitive.

2. Pulling Mode

After power on the scooter without people standing on the scooter, press the button “A” of remote controller, after hearing a “beep” sound. The scooter starts self balance and enters pulling mode. In this mode, the scooter can go by itself and be pulled by hand easily. Pressing the button “A” of remote controller and also with a beep sound, the pulling mode will be canceled. The scooter will stop work.

3. Beginner Mode

After power on the scooter without people standing on the scooter, press button “C” of remote controller and after hearing a “beep” sound, The scooter starts self balance and enters Beginner Mode, in this mode, the max speed 8km/h and the turning is slow.

4. Medium Mode

After power on the scooter without people standing on the scooter, press button “C” remote controller and after hearing a “beep” sound, The scooter starts self balance and enters Medium Mode, in this mode, the max speed 20km/h and the turning is the most flexible and sensitive.

4. D button- light button

5. B Button to lock the scooter, when locked, it starts the alarm function. Push the A button to unlock.

6. Remarks about Switching between Different Modes

(1) Besides pressing button “A” to cancel Pulling Mode, it can also be achieved by standing on the pedal. The scooter enters working status immediately after someone stands on the scooter.

(2) You need to power off the scooter and restart it if you want to switch to “Default or Normal mode” when the scooter is in “Beginner mode” or “Medium mode”.

(3) You need to leave the scooter (without someone on the scooter), and press corresponding buttons, then the scooter enters corresponding mode, when the scooter is in “Default or Normal mode”.

(4) You need to leave the scooter (without someone on the scooter) when you want to switch different mode. All the modes can't be switched in driving (with people on scooter).

Chapter V Driving

Driving the Personal Transporter vehicle is totally different from anything you may have driven before. The Transporter does not have brakes, accelerator or gear system. Please read the user manual or get instruction from an experienced person before your first ride.

The Transporter is great once you enjoy the fun of driving, you will not help yourself driving it whenever you get the chance, following these instructions will be beneficial for your safety.

1. Standing on Transporter

After switching on, hold the handlebar with right hand. Then step on the pedal with your right foot (refer to picture 9); or hold the handlebar with left hand, meanwhile step on the pedal with left foot (after you press down the pedal switch, Transporter will start computer balance, and will activate balance mode. The order is: left hand-left foot or right hand-right foot. When you are on scooter, stand upright without any action, just relax and keep your balance, whilst standing upright. (picture 10)



Picture 9



Picture 10

2. Driving Straight Forward

Lean your body forward slowly using the center of gravity. The Transporter will move forward (refer to picture 11). The driving speed is controlled by the leaning angle of your body the more you lean, the faster you will go. For a stable driving, we suggest leaning forward slowly. It is dangerous to lean forward suddenly; this is just like sudden acceleration when driving a car.



Picture 11

3. Braking and Driving Backward

Driving backward is not recommended for the driver's safety, because it is hard for you to see behind when driving. The Turning radius of the Transporter is zero, which you can easily achieve in a continuous spin around 360 degrees on the spot. When you drive forward in a straight line and you want to slow down or stop, you can lean backward or squat down (the center of gravity backward). Lean slowly or smoothly backward is helpful for slowing down and stopping safely (refer to picture 12).



Picture 12

Tip: Driving forward in a straight line you just simply push the handle forward, then backward to slow down or stop.

4. Turning in Original Place, Turn Around and Rotate 360 Degrees

It is easy to turn the Transporter when driving. Keep the pipe/handle bar left-forward or right-forward to the end, at the same time correspond your body

left-forward or right-forward. (Refer to picture 13 and 14). Thus you can easily achieve various turns. When the Transporter faces the right position, you only need return the pipe to the original position and stand straight Transporter will stop.



Picture 13



Picture 14

5. Turning in Driving

The Personal Transporter's turning range is calculated automatically according to the driving speed. When the speed is faster; the turn range will be less to ensure safety of the driver. To turn left, the turning pipe should be swung smoothly to the left at the same time as your body leans left. The angle of Transporter's turning is decided by the swinging angle of the turning pipe and the leaning of your body.

Tip: The actual turning is finished by the above combination of actions, driving the Transporter is like a combination of riding horses and skiing. Balance and stability ensures safe riding. The Personal Transporter is also called a thinking car. Which means the driver can drive Transporter according his thoughts.

6. Driving in Bad Weather

Although the Transporter is 100% waterproof please avoid using it in rainy days to avoid slipping.

The Tesla Transporter can be driven in the snow.

Transporter does have night-lights, which work very well for visibility.

Please comply with local traffic regulations and the local laws at all times.



Picture 15



Picture 16

Chapter VI Charging

When you find the orange lamp and red indicator is continuously on, it shows the battery needs to be charged. First, turn off the power switch and use the specialized Lithium battery charger. Insert the plug into Transporter's charge jack, then connect the power. When charger is connected the Red light will glow continuously, showing Transporter is in charge mode (refer to picture 17).

The charger has two indicators---the red light means it is charging, Green light means fully charged. The input voltage of charger is 110-240v, which can be universally used anywhere in the world. The charger takes 5-8 hours to fully charge. When fully charged the green light will be continuously on. The charging electric current will then decrease output. The charger will become warm when charging, so please keep in a suitable place.



Picture 17

Please keep power switch of Transporter off when on charge, otherwise, Transporter will consume power, which is bad for charging.

Chapter VII Maintenance

All other items that are not mentioned below should be done by a professional person or technician.

1. The Maintenance of Battery

Transporter use Lithium Ion maintenance free battery. When you find the orange lamp and red lamp light continuously on, please charge. Keep the charge time to no more than 12 hours. If you are not using Transporter for long periods, keep it charged, excessive discharge and re-charge is bad for the battery's life and can even lead to having to scrap the battery. (Suggestion: please keep it charged every month even you don't drive it)

2. When not using the Transporter

Please turn off the power switch then lock the switch, in case of accidental starting.

3. Replacing Fuse

The fuse of Transporter is 40A car fuse, the fuse maybe burned after overload or crashed sharply. When you find that there is no action when power on, check the fuse if it is burnt out. To replace the fuse, open the fuse cover at the back of body with screwdriver, take out the fuse using clamp and replace with a new fuse.

4. Fastening Nut of Tire

Pay attention to the big nut on the wheel. Check regularly to see if it is loose. If so, tighten the nuts with a 21mm spanner to 108 torque wrench.

5. Maintenance of Tire

The normal air pressure is the basic conditions to guarantee your safe driving. The standard tire pressure is $250 \text{ kpa} = 2.5 \text{ bar} = 2.55 \text{ kg/cm}^2 = 36.25 \text{ psi}$, that is what we recommend. It is necessary to check the tire pressure regularly. Under inflation and excessive inflation will cause unequal tyre wear, which changes comfort and mileage and shortens the life of the tyre tread. Under-inflated tyres also influence power saving.

Also check for cuts and splits which could cause the tyre to deflate at a rapid rate, causing injury to the rider.

6. Appearance Cleaning

It is necessary to keep the pedal and body of Transporter clean. Please clean the gravel, soil, sand, mud etc... after you're driving. Don't use any corrosive chemical such as petrol to clean the Transporter, you can clean the Transporter by using a soft cloth and brush, or a pressure washer (water only - recommended)

Chapter VIII Notice

1.Keep Pedal of Transporter Horizontal

Transporter will consider the current pedal's position as its original position setting when power is on, so the pedal must not be horizontal after the power is switched on; it is hard for the driver to stand on Transporter if the pedal is not vertical.

2.Balance Output of Transporter

Computer balance will start immediately after you press the pedal switch on the Transporter. If you keep pressing the pedal switch, the computer balance will be continuous on. When at a low speed, even if the pedal switch is restored (the pedal switch is pulled up) the balance will keep working to let driver leave and push the Transporter conveniently. The Transporter has a self balance computer when not in use, to keep it from rolling or falling.

Transporter Standby

When you want to make Transporter stand after driving, you can turn off power and walk away, the self balance computer will take over.

Chapter IX Technical Data

Net Weight	43 kg
Dimension	43*43*68 cm
Max cruise speed	18km/h
Max load	120kg
Max. Mileage (after full charging)	35-40 km
Max climb capability	35 degrees
Min turning radius	0
Charging time	5h-8h
Battery	36v Lithium Ion battery
Power	Two DC Motor, DC servo drives
Voltage	100 v-240 v
Max Power	1600 watts (2*800 w/pc)
Lifetime of battery	Up to 2000 charge cycles (replaceable)
Tire	17 in / 43 cm vacuum smooth tubeless
Wheel	12 in / 26 cm Aluminum Rim
Height of handle	110-126 cm adjustable
Height of footplate	10in/26cm
Specification of footplate	11.5×25 in / 16×40 cm
Max. Height above ground	13 cm
Standard Pressure	250 kpa
Safety Certificates	CE & ROHS & FCC

12 MONTHS WARRANTY

Frame is warranted to be free from manufacture defects in materials and/or workmanship for a 1 year period from the date of original purchase.

Motor and CPU are warranted to be free from manufacture defects in materials and/or workmanship for a 1 year period from the date of original purchase.

Lithium Ion batteries are warranted to be free from manufacture defects in materials and/or workmanship for a 1 year period from the date of original purchase (cycle life or deep charge up to 70% full capacity).

WE TAKE SAFETY AND QUALITY VERY SERIOUSLY!

ALL TESLA WHEELS PRODUCTS UNDERGO ELABORATE TESTING AND MUST COMPLY WITH THE BELOW CERTIFICATIONS BEFORE BEING SOLD:

CE, FCC, RoHS & ISO9001.

WE HOPE YOU ENJOY YOUR NEW TESLA PERSONAL TRANSPORTER.

PLEASE LEAVE US A FACEBOOK COMMENT ON OUR WEBSITE IF YOU ENJOYED THIS EXPERIENCE. THIS HELPS US GROW AND INVEST IN MORE INNOVATIVE PRODUCTS.

TESLA ENTERPRISES – ENGINEERING A BETTER WORLD